

Description of two new species of the genus *Pygmaepterys* Vokes, 1978
and report of *Typhis (Talityphis) bengalensis* (Radwin & D'Attilio, 1976)

(Gastropoda: Muricidae), from the Gulf of Aden.

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KEYWORDS: Gastropoda, Muricidae, *Pygmaepterys* n.sp., *Talityphis* new locality.

MOTS-CLEFS: Gastropoda, Muricidae, *Pygmaepterys* n.sp., *Talityphis*, nouvelle localité.

ABSTRACT. *Pygmaepterys adenensis* and *P. yemenensis*, two new muricid species, are described from PDR Yemen. A third species, *Typhis (Talityphis) bengalensis* (Radwin & D'Attilio, 1976), is recorded for the first time from the Gulf of Aden.

RESUME. *Pygmaepterys adenensis* et *P. yemenensis*, deux nouvelles espèces de Muricidae, sont décrites de la R.P.D. du Yémen, et l'aire de distribution géographique de *Typhis (Talityphis) bengalensis* (Radwin & D'Attilio, 1976) est étendue au Golfe d'Aden.

ABBREVIATIONS. The following abbreviations are used in the text:

NM: Natal Museum, Pietermaritzburg, South Africa.

WPU: Wilhelm-Pieck-Universität, Rostock, DDR.

ZMB: Museum für Naturkunde der Humboldt Universität zu Berlin, Zoologisches Museum, DDR.

sp: live taken shell.

sh: empty shell.

INTRODUCTION.

While a guest lecturer at the University of Aden from 1982 to 1985, one of the authors (W. WRANIK) had the opportunity to investigate the macrozoobenthos in the Gulf of Aden. Collections (shore collecting / SCUBA-diving) were done in various parts of

the PDR Yemen coastal area in cooperation with the Marine Science and Resources Centre Aden (MSRC). Benthic samples (dredge / grab sampler) up to a depth of 300 m were taken during various cruises of the RV *Ibn Magid* (PDRY) and *Hayka* (USSR) (see map). During these activities, a large number of molluscs were found.

Investigation of the Muricidae revealed some species already known to occur in the geographical area, but also *Typhis (Talityphis) bengalensis* (Radwin & D'Attilio, 1976), originally described from specimens collected in the Bay of Bengal (type locality) and in the Philippine islands, as well as two new species of *Pygmaepterys*, a taxon erected by VOKES (1978), grouping species with *Pterynotus*-like outline and typical Muricopsine radula.

Pygmaepterys adenensis n.sp.

Figs. 1, 3-4, 5.

MATERIAL STUDIED. Stn 9/82, 13°44'0" N, 48°44'5" E, 45 m, 16 May 1985, WPU, 1 sh; stn 33/16, 14°46'6" N, 49°58'9" E, 50 m, 8 June 1985, WPU, 1 sp; stn 44/27, 15°25'8" N, 51°50'0" E, 16 m, 21 June 1985, WPU, 1 sp; Indian Ocean (no further locality data), coll. R. Houart, 1 sh.

TYPE MATERIAL. Holotype Stn 44/27, ZMB ; 1 paratype stn 33/16, ZMB ; 1 paratype stn 9/82, R. Houart coll.

TYPE LOCALITY. 15°25'8" N, 51°50'0" E, Gulf of Aden, PDR Yemen, 16 m.

DESCRIPTION. Shell large for the genus, biconic. Spire high with 1.5 protoconch whorls and 6 slightly angulate teleoconch whorls. Protoconch rounded and smooth. Suture slightly impressed, obscured by fine axial lamellae and varices of preceding whorl.

Last teleoconch whorl bearing 5 sharp, folded and spiny varices ; other axial sculpture consisting of numerous, small squamous lamellae. Spiral sculpture of 8 - 9 primary cords, rarely one intermediate squamous fine thread between each pair of cords. Primary cords ending as small, open, and backwards bent spines on the varices. Shoulder spine longest. Spiral sculpture of the siphonal canal of 8 - 9 crowded squamous cords and threads.

Aperture ovate. Columellar lip slightly detached from the shell ; adherent posteriorly ; ornamented with 3 - 4 small and strong denticles anteriorly. Anal notch distinct and broad. Outer apertural lip slightly erect ; inner side of outer lip bearing 7 - 9 elongate and strong denticles. Siphonal canal moderately long, narrowly open and distally bent backwards. Shell whitish with sometimes a pale brown band on the shoulder and on the siphonal canal. Size up to 17.2 mm in length (holotype).

DISCUSSION. This species was illustrated by HOUART (1979 : fig. 1), as *Pterynotus* (*Pygmaepterys*) *alfredensis* (Bartsch, 1915) ; by VOKES and D'ATTILIO (1980 : pl. 2, fig. 2), as *Pygmaepterys* cf. *P. alfredensis* (Bartsch) and by D'ATTILIO & MYERS (1985 : fig. 13) as *Pygmaepterys* sp.

A careful comparison was made between our 4 specimens and a worn, juvenile specimen of *P. alfredensis* from the Natal Museum (NM 5461). The following differences in shell characters have been noted: the specimen of *P. alfredensis*, a 6 mm high shell with 4+ teleoconch whorls and broken protoconch, is one-half the size of a juvenile of *P. adenensis* with the same number of teleoconch whorls. It is also more elongate and more slender. The spiral cords are narrower in *P. alfredensis*, more numerous, and more irregular in form. The juvenile of *P. adenensis* has 8 spiral cords on the last teleoconch whorl and 4 - 5 on the penultimate, while *P. alfredensis* has 14 - 16 cords and threads of different size on the last teleoconch whorl and 8 - 9 on the penultimate. The suture is more impressed in *P. alfredensis* and the shoulder more excavated. Differences between *P. adenensis* and the other new species, *P. yemenensis*, are explained in the discussion following the description of *P. yemenensis*. *P. adenensis* also differs from *Pygmaepterys bellini* D'Attilio & Myers, 1985 and from *P. philcloveri* (Houart, 1984) by its more numerous and regular spiral cords on the last whorl; by its more numerous and regular denticles in the inner side of the outer apertural lip, and by its more angulate shoulder. *P. philcloveri* also has a smaller and conical protoconch.

Pygmaepterys yemenensis n.sp.

Figs. 2, 6-7.

MATERIAL STUDIED. Stn 33/16, 14°46'6" N, 49°58'9" E, 50 m, 8 June 1985, WPU, 1 sp.

TYPE MATERIAL. Holotype ZMB.

TYPE LOCALITY. 14°46'6" N, 49°58'9" E, Gulf of Aden, PDR Yemen, 50 m.

DESCRIPTION. Shell large for the genus, biconic. Spire high with 6 slightly angulate teleoconch whorls, and unknown protoconch (broken on the holotype specimen). Suture slightly impressed but obscured by axial lamellae.

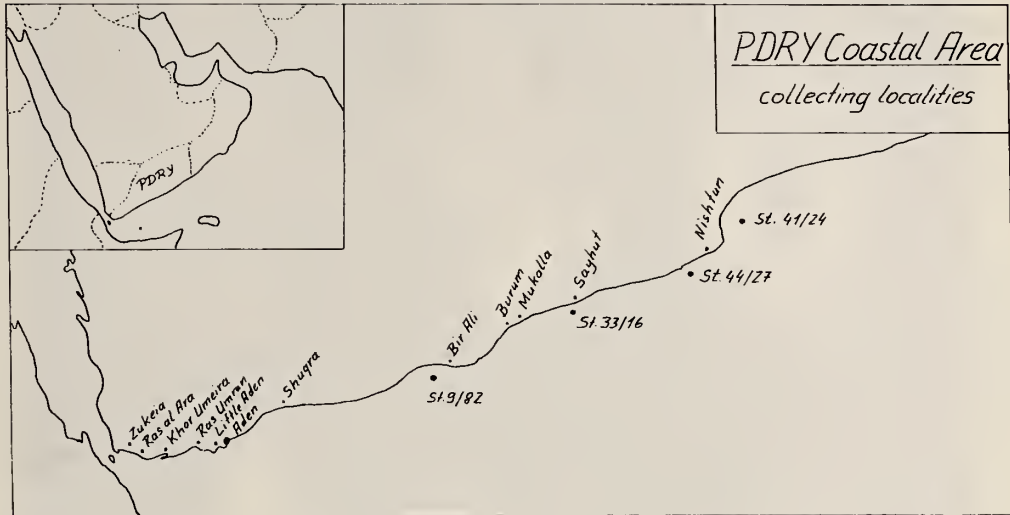
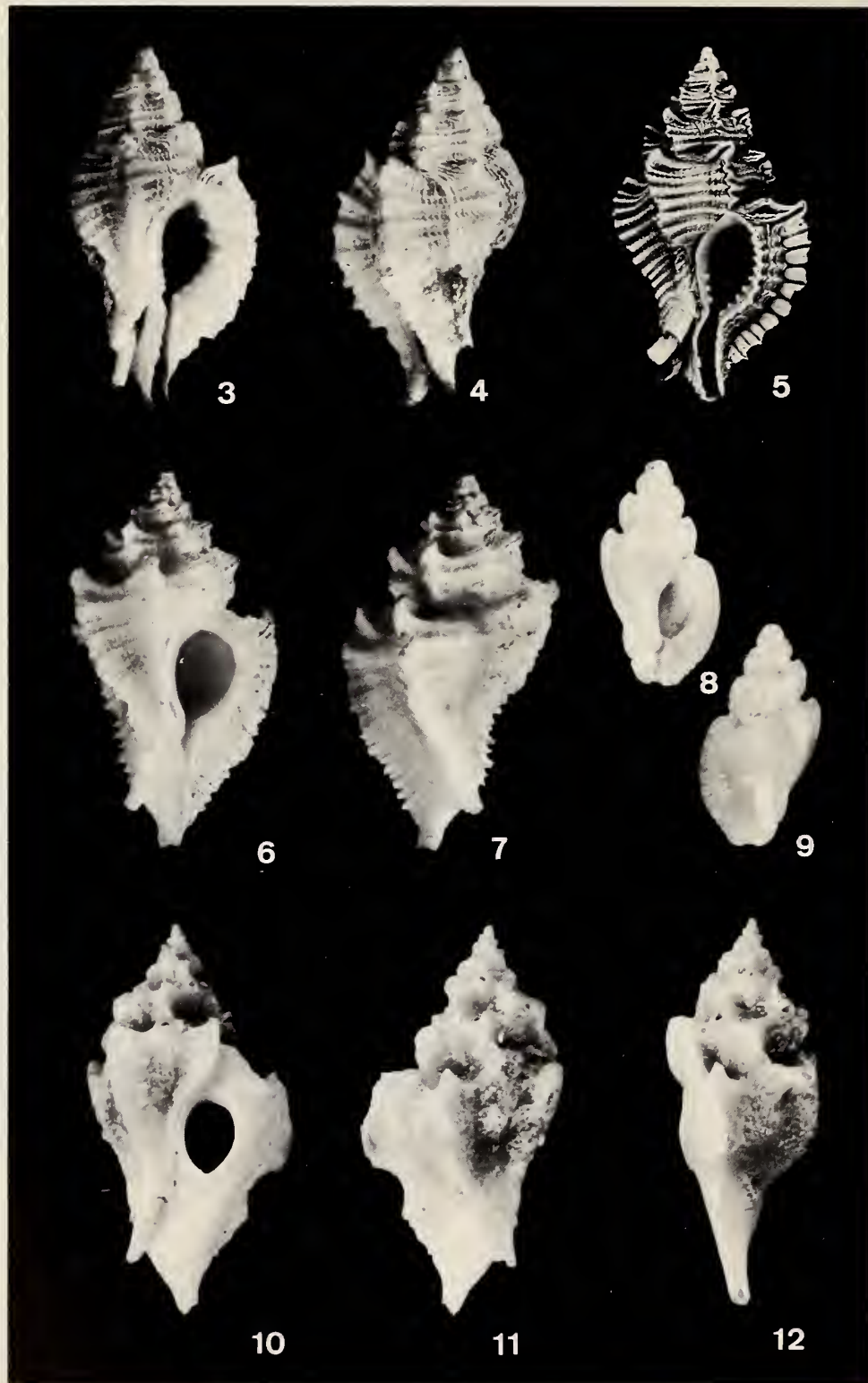


Fig. 1. Protoconch of *Pygmaepterys adenensis* n. sp. (paratype ZMB). Scale line 0,5 mm.
Fig. 2. Radula of *Pygmaepterys yemenensis* (holotype ZMB). Scale line 10 μ m.



88 Figs. 3-4. *Pygmaepterys adenensis* n. sp. Holotype ZMB, 17,2 mm.
 Fig. 5. *Pygmaepterys adenensis* n. sp. Indian Ocean, coll.R. Houart, 16,4 mm (whitened). Photo courtesy Dr. Vokes.
 Figs. 6-7. *Pygmaepterys yemenensis* n. sp. Holotype ZMB, 20,5 mm.
 Figs. 8-9. *Pygmaepterys alfredensis* (Bartsch), NM 5461, 6 mm.
 Figs. 10-12. *Typhis (Talityphis) bengalensis* (Radwin & D'Attilio, 1976), 15°49'5" N, 52°24'3" E,

Last teleoconch whorl bearing 5 low and sharp, flanged varices, with squamous adapertural face and small recurved spinelets. No other axial sculpture. Spiral sculpture of last whorl consisting of 5 primary cords, and numerous secondary cords and threads. The whole surface covered by fine spiral striae. Spiral sculpture on the siphonal canal of 8 secondary cords and threads. Spiral cords ending as small spinelets on the varices.

Aperture rounded with strongly erect outer lip. Columellar lip smooth, slightly detached from the shell. Anal notch obsolete. Inner side of outer lip ornamented with 3 elongate folds anteriorly. Siphonal canal moderately long and straight, narrowly open and slightly dorsally recurved at distal end. Shell whitish with pale brown band on the shoulder. Operculum with triangular shape and apical nucleus. Radula muricopsine, although with 3 to 4 additional denticles between the lateral and marginal cusp. The radula of the holotype consists of 110 rows of teeth.

Length of the holotype: 20.5 mm.

DISCUSSION. This new species is comparable to *Pygmaepterys adenensis* n. sp., but it differs in following shell characters: The spiral sculpture of the last whorl of *P. adenensis* consists of 8-9 primary cords and some rare secondary threads, while *P. yemenensis* has 5 primary cords and numerous secondary cords and threads. The fine spiral striae observed in *P. yemenensis* are absent in *P. adenensis*. The aperture of *P. yemenensis* is rounded with entirely smooth and erect columellar lip, while *P. adenensis* has an ovate and strongly denticulate aperture; in *P. yemenensis*, the outer lip is also more erect. Both species are found sympatrically, a juvenile of *P. adenensis* was found together with the holotype of *P. yemenensis*.

P. bellini D'Attilio & Myers, 1985 and *P. philcloveri* (Houart, 1984) have ovate and denticulate apertures, and different ornamentation, the spiral cords in both species being somewhat equisized and more numerous on the last whorl than in *P. yemenensis*.

Typhis (Talityphis) bengalensis (Radwin & D'Attilio, 1976)

Figs. 10-12

Talityphis bengalensis Radwin & D'Attilio, 1976 : 234, figs. 186, 187.

MATERIAL STUDIED. Stn 41/24, Gulf of Aden, 15°49'5" N, 52°24'3" E, 75 m, 19 June 1986, 1 sh, WPU.

DISCUSSION. The specimen examined matches very well the description given by RADWIN & D'ATTILIO (1976 : 234), except for the size, being of a maximum length of 9.5 mm in the original diagnosis and of 21 mm in the specimen from the Gulf of Aden. However the length is not really a problem in this case, because the description was based only on specimens having not more than 4 teleoconch whorls, while this specimen has 6 ones.

The locality gives an important geographical range extension for that species, previously known only from the Bay of Bengal, in 79 m (type locality) and from the Philippines.

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